REMARKS

In accordance with the foregoing, the specification and claim 11 has been amended. Claims 1-36, 38, 39, and 42-63 are pending and under consideration.

REJECTION UNDER 35 U.S.C. § 112:

In the Office Action, at page 2, claim 13 was objected to under 37 CFR § 1.75 as being a substantial duplicate of claim 11. In view of the proposed amendment to claim 11, the outstanding objection to claim 13 should be resolved.

REJECTION UNDER 35 U.S.C. § 102:

In the Office Action, at page 2, claims 1, 8-14, 20-29, 38, 39, 42-58, and 60-63 were rejected under 35 U.S.C. § 102 in view of U.S. Patent No. 6,266,315 to Lee et al. ("Lee"). This rejection is traversed and reconsideration is requested.

According to Lee, first and second surfaces 203 and 205 have total reflection characteristics given by means of a coating and so on. See column 5, lines 21-23 of Lee. However, a refractive surface 201 and a beam focusing surface 204 are not processed by a reflection coating, and have a light transmission characteristic. See column 5, lines 23-27 of Lee. However, Lee fails to teach or suggest, "a second reflecting portion . . . condensing and reflecting the incident beam from the first reflecting portion towards the second transmitting portion," as recited in independent claims 1 and 14. Rather, the first reflection surface 203 is disposed at the outer area of the refractive surface 201, and the second reflection surface 205 is disposed at the outer area of the beam focusing surface 204. See column 5, lines 29-32 of Lee. The beam focusing surface 204 instead focuses the beam.

Furthermore, Lee is silent as to providing "a first reflecting portion, comprising a negative power . . .a second reflecting portion, comprising a positive power," as recited in independent claims 1 and 14. Nowhere is there a teaching or suggestions of such claimed features as recited in independent claims 1 and 14. Instead, Lee generally describes that all convex surfaces have a positive radius of curvature and all concave surfaces have a negative radius of curvature. See column 5, lines 42-44 of Lee. Accordingly, it is respectfully asserted that Lee fails to teach or suggest all the claimed features of independent claims 1 and 14. It is respectfully requested that independent claims 1 and 14 and related dependent claims be allowed.

Referring to independent claim 38, this claim recites, "wherein the at least one reflecting portion comprises a negative power and the at least one reflecting portion further comprises a positive power," independent claims 42 and 53 recite "a single lens configuration comprising a high numerical aperture to form a high-density, high resolution light spot, a first reflecting portion comprising a negative power, and a second reflecting portion comprising a positive power," and independent claim 48 recites "a first reflecting portion comprising a negative power, and a second reflecting portion comprising a positive power." The Office Action refers to similar portions of the cited references to reject independent claims 38, 42, 48 and 53 as the portions of the cited references previously discussed and distinguished from the claimed features of independent claim 1. The arguments presented above supporting the patentability of independent claim 1 in view of Lee are incorporated herein to support the patentability of independent claims 38, 42, 48 and 53 and related dependent claims.

The refractive surface 311 refracts an incident light beam 10 in a divergent form. See column 7, lines 7-8 of Lee. The second reflection surface 315 reflects the light beam being refracted by refractive portion 311 toward the first reflection surface 313. See column 7, lines 8-10 of Lee. The first reflection surface 313 reflects the incident laser light reflected from the second reflection portion 315 toward the beam focusing portion 33. See column 7, lines 10-13 of Lee. The light spot finally focused by the optical focusing system of FIG. 3A is formed on a focusing surface 331 of the near field former 33 being placed toward the magneto-optical disk 110. See column 7, lines 13-16 of Lee. Further, in FIG. 4B, reference numeral 711 denotes a refractive surface, 713 is a first reflection surface, 715 is a second reflection surface, 751A is a protrusion, and 753 a beam focusing surface.

However, Applicants fail to appreciate how a person of ordinary skill in the art would arrive to "a second transmitting portion transmitting only the converging light beam," as recited in independent claim 60, when Lee limits its description to the second reflection surface 315 as reflecting the light beam and a protrusion 751A. Lee fails to teach or suggest all the claimed features of independent claim 60, in particular, the cited reference fails to teach or suggest "at least one portion converging the diverging light beam to a converging light beam, and a second transmitting portion transmitting only the converging light beam." Similarly, Lee fails to teach or suggest "at least another portion to alter a path of the incident light beam, a second transmitting portion shielding the incident light beam of a near-axis region and transmitting the altered light beam from the at least another portion," as recited in independent claim 62.

In view of the foregoing arguments, it is respectfully requested that independent claims 1,

14, 38, 42, 48, 53, 60, and 62 and related dependent claims be allowed.

In the Office Action, at page 7, claims 32 and 33 were rejected under 35 U.S.C. § 102 in view of U.S. Patent No. 6,339,577 to Hineno ("Hineno"). This rejection is traversed and reconsideration is requested.

According to Hineno, a collimator lens 6 of the optical head device 1 is movable in a direction along an optical axis of the optical head device 1 to converge a laser beam while correcting the spherical aberration of the laser beam caused by a variation in thickness of a light transmission layer of the optical disk 2, the accuracy of an optical part, and the like. See column 3, lines 18-25 of Hineno. Further, Hineno recognizes that it is possible to correct the spherical aberration of the laser beam caused by a variation in thickness of a light transmission layer of the optical disk 2 and the accuracy of an optical part by displacing the collimator lens 6 along the optical axis. See column 5, lines 38-42. However, even assuming, arguendo, that the collimator lens 6 of Hineno, is the detecting-correcting unit recited in independent claim 32, Hineno fails to teach or suggest that the collimator lens 6 detects "the thickness of the optical disk," as recited in independent claim 32.

Specifically, rather than providing "a detecting-correcting unit, arranged on the optical path between the optical path changing unit and the objective lens, detecting the thickness of the optical disk and correcting aberration caused by thickness variations of the optical disk," as recited in independent claim 32, Hineno merely recognizes the drawbacks of variations in thickness of the optical disk 2. There is no detection of the thickness of the optical disk 2 in Hineno. Accordingly, it is respectfully requested that independent claim 32 and related dependent claim 33 be allowed.

In the Office Action, at page 7, claims 32 and 34 were rejected under 35 U.S.C. § 102 in view of U.S. Patent No. 5,920,532 to Yagi et al. ("Yagi"). This rejection is traversed and reconsideration is requested.

Yagi generally describes correction means to cope with the difference of the thickness of the information recording medium 90, is composed of a correction lens 17 (concave lens), and when this correction lens is moved in the direction of the optical axis, an apparent position of the light beam source of the luminous flux entering into the objective lens 16 is shifted and the aberration of the optical spot is corrected. See FIG. 72. However, Yagi fails to detect the thickness of the information recording medium 90, rather, it simply recognizes that variations exist in information recording media.

Specifically, Yagi fails to teach or suggest "a detecting-correcting unit, arranged on the optical path between the optical path changing unit and the objective lens, detecting the thickness of the optical disk and correcting aberration caused by thickness variations of the optical disk," as recited in independent claim 32. Accordingly, it is respectfully requested that independent claim 32 and related dependent claim 34 be allowed.

In the Office Action, at page 8, claim 36 was rejected under 35 U.S.C. § 102 in view of U.S. Patent No. 4,433,340 to Mashita et al. ("Mashita"). This rejection is traversed and reconsideration is requested.

According to the Office Action, the organic protection layer 28 of Mashita teaches "the thickness from the incident surface of the information substrate to the recording surface is less than 0.1 mm, and a thickness error from the incident surface of the information substrate to the recording surface is within ± 5 μm," as recited in independent claim 36. However, Applicants respectfully disagree. Mashita is silent as to providing specifications for a thickness error from the incident surface of the information substrate to the recording layer.

It appears that the Office Action views the thickness from the incident surface of the information substrate to the recording surface and the thickness error to be the same, and accordingly, views the organic protection layer 28 to be teaching the dimensions of both thicknesses. Nonetheless, each claimed feature provided in the claims must be individually considered, rather than interpreting one feature to be the same as another feature. Even assuming, arguendo, that the organic protection layer 28 of Mashita provides "the thickness from the incident surface of the information substrate to the recording surface is less than 0.1 mm," as recited in independent claim 36, the reference cited fails to teach or suggest "**a thickness error** from the incident surface of the information substrate to the recording surface is within ± 5 μm," emphasis added, as recited in independent claim 36. Accordingly, it is respectfully requested that independent claim 36 be allowed.

In the Office Action, at page 8, claim 36 was rejected under 35 U.S.C. § 102 in view of U.S. Patent No. 6,159,572 to Kobayashi et al. ("Kobayashi"). This rejection is traversed and reconsideration is requested.

According to the Office Action, the first protective film 4 of Kobayashi teaches "the thickness from the incident surface of the information substrate to the recording surface is less than 0.1 mm, and a thickness error from the incident surface of the information substrate to the recording surface is within ± 5 μm," as recited in independent claim 36. However, Applicants

respectfully disagree. Kobayashi is silent as to providing specifications for a thickness error from the incident surface of the information substrate to the recording layer.

It appears that the Office Action views the thickness from the incident surface of the information substrate to the recording surface and the thickness error to be the same, and accordingly, views the first protective film 4 to be teaching the dimensions of both thicknesses. Nonetheless, each claimed feature provided in the claims must be individually considered, rather than interpreting one feature to be the same as another feature. Even assuming, arguendo, that the first protective film 4 of Kobayashi provides "the thickness from the incident surface of the information substrate to the recording surface is less than 0.1 mm," as recited in independent claim 36, the reference cited fails to teach or suggest "**a thickness error** from the incident surface of the information substrate to the recording surface is within ± 5 μm," emphasis added, as recited in independent claim 36. Accordingly, it is respectfully requested that independent claim 36 be allowed.

REJECTION UNDER 35 U.S.C. § 103:

In the Office Action, at page 9, claims 30-35 were rejected under 35 U.S.C. § 103 in view of Lee, Yagi, or Hineno. This rejection is traversed and reconsideration is requested.

Dependent claims 30 and 31 depend from independent claim 14. Accordingly, all the claimed features of independent claim 14 must be taught by the combination of the cited references. The arguments provided above supporting the patentability of independent claim 14 in view of Lee are incorporated herein. Referring to Yagi, the reference provides a coupling lens having a positive refractive power rather than teaching or suggesting "a first reflecting portion, comprising a negative power," and "a second reflecting portion, comprising a positive power," as recited in independent claim 14. Further, Hineno is silent as to providing "a first reflecting portion, comprising a negative power, condensing and reflecting the incident beam from the first transmitting portion, wherein the first reflecting portion is formed around the second transmitting portion; and a second reflecting portion, comprising a positive power, condensing and reflecting the incident beam from the first reflecting portion towards the second transmitting portion, wherein the second reflecting portion is formed around the first transmitting portion," as recited in independent claim 14. Accordingly, even if Lee, Yagi, and Hineno were combined, all the claimed features of independent claim 14 would not be provided.

Referring to independent claim 32, the arguments provided above supporting the patentability of independent claim 32 in view of Yagi and Hineno are incorporated herein. Similarly to Yagi and Hineno, Lee generally describes that a focusing element and a beam focusing portion have a refractive index of about 1.84, and a thickness of the beam focusing portion protruded from the second reflection surface is within the range of about 0.1 to 0.2 mm. However, nowhere in the reference is there a teaching or suggestion of "a detecting-correcting unit, arranged on the optical path between the optical path changing unit and the objective lens, **detecting the thickness of the optical disk and correcting aberration caused by thickness variations of the optical disk,**" emphasis added, as recited in independent claim 32. Accordingly, even if Lee, Yagi, and Hineno were combined, all the claimed features of independent claim 32 would not be provided. It is respectfully requested that independent claims 14 and 32 and related dependent claims be allowed.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: July 1, 2003

By: Alicia Choi
Alicia M. Choi
Registration No. 46,621

700 Eleventh Street, NW, Suite 500
Washington, D.C. 20001
(202) 434-1500

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please AMEND claim 11. The remaining claims are reprinted, as a convenience to the Examiner, as they presently stand before the U.S. Patent and Trademark Office.

1. (UNAMENDED) An objective lens, comprising:

a first transmitting portion divergently transmitting an incident beam, wherein the first transmitting portion is at a relatively near-axis region from an optical axis of the objective lens;

a second transmitting portion transmitting the incident beam, wherein the second transmitting portion is arranged facing the first transmitting portion;

a first reflecting portion, comprising a negative power, condensing and reflecting the incident beam from the first transmitting portion, wherein the first reflecting portion is formed around the second transmitting portion; and

a second reflecting portion, comprising a positive power, condensing and reflecting the incident beam from the first reflecting portion towards the second transmitting portion, wherein the second reflecting portion is formed around the first transmitting portion.

2. (UNAMENDED) The objective lens of claim 1, wherein a ratio of a diameter of the second transmitting portion to an outer diameter of the incident beam on the first reflecting portion is 0.5 or less, reducing side lobe components of a light spot formed through the second transmitting portion.

3. (UNAMENDED) The objective lens of claim 2, wherein at least one of the first and second reflecting portions further comprise a path difference generating portion generating a separate optical path for at least a portion of the incident beam, reducing the side lobe components of the light spot formed through the second transmitting portion by a difference in paths of a portion of the incident beam on the path difference generating portion and the remainder of the incident beam.

4. (UNAMENDED) The objective lens of claim 3, wherein the path difference generating portion projects from the concave curvature of the second reflecting portion.

5. (UNAMENDED) The objective lens of claim 3, wherein the path difference

generating portion recesses into the concave curvature of the second reflecting portion.

6. (UNAMENDED) The objective lens of claim 3, wherein the path difference generating portion is formed in the first reflecting portion.

7. (UNAMENDED) The objective lens of claim 1, wherein at least one of the first and second reflecting portions further comprise a path difference generating portion generating a separate optical path for at least a portion of the incident beam, reducing the side lobe components of the light spot formed through the second transmitting portion by a difference in paths of a portion of the incident beam on the path difference generating portion and the remainder of the incident beam.

8. (UNAMENDED) The objective lens of claim 7, wherein the path difference generating portion projects from the concave curvature of the second reflecting portion.

9. (UNAMENDED) The objective lens of claim 7, wherein the path difference generating portion recesses into the concave curvature of the second reflecting portion.

10. (UNAMENDED) The objective lens of claim 7, wherein the path difference generating portion is formed in the first reflecting portion.

11. (ONCE AMENDED) The objective lens of claim [1] 7, wherein the first transmitting portion has curvature with a negative power.

12. (UNAMENDED) The objective lens of claim 1, wherein a maximum angle, α, between the optical axis and an outermost ray of the incident beam passed through the second transmitting portion after passing through the first transmitting portion and reflecting on the first and second reflecting portions, satisfies the following condition in the air

$\alpha \geq 36^\circ$.

13. (UNAMENDED) The objective lens of claim 1, wherein the first transmitting portion has curvature with a negative power.

14. (UNAMENDED) An optical pickup, comprising:

a light source emitting a laser beam;

an optical path changing unit altering a traveling path of an incident beam;

an objective lens, disposed on an optical path between the optical path changing unit and an optical disk, focusing the incident beam from the light source to form a light spot on the optical disk; and

a photodetector receiving the beam reflected from the optical disk and passed through the objective lens and the optical path changing unit,

wherein the objective lens comprises

a first transmitting portion divergently transmitting an incident beam, wherein the first transmitting portion is at a relatively near-axis region from an optical axis of the objective lens;

a second transmitting portion transmitting the incident beam, wherein the second transmitting portion is arranged facing the first transmitting portion;

a first reflecting portion, comprising a negative power, condensing and reflecting the incident beam from the first transmitting portion, wherein the first reflecting portion is formed around the second transmitting portion; and

a second reflecting portion, comprising a positive power, condensing and reflecting the incident beam from the first reflecting portion towards the second transmitting portion, wherein the second reflecting portion is formed around the first transmitting portion.

15. (UNAMENDED) The optical pickup of claim 14, wherein a ratio of a diameter of the second transmitting portion to an outer diameter of the incident beam on the first reflecting portion is 0.5 or less, reducing side lobe components of a light spot formed through the second transmitting portion.

16. (UNAMENDED) The optical pickup of claim 15, wherein at least one of the first and second reflecting portions further comprise a path difference generating portion generating a separate optical path for at least a portion of the incident beam, reducing the side lobe components of the light spot formed through the second transmitting portion by a difference in paths of a portion of the incident beam on the path difference generating portion and the remainder of the incident beam.

17. (UNAMENDED) The optical pickup of claim 16, wherein the path difference

generating portion projects from the concave curvature of the second reflecting portion.

18. (UNAMENDED) The optical pickup of claim 16, wherein the path difference generating portion recesses into the concave curvature of the second reflecting portion.

19. (UNAMENDED) The optical pickup of claim 16, wherein the path difference generating portion is formed in the first reflecting portion.

20. (UNAMENDED) The optical pickup of claim 14, wherein a maximum angle, α, between the optical axis and an outermost ray of the incident beam passed through the second transmitting portion after passing through the first transmitting portion and reflecting on the first and second reflecting portions, satisfies the following condition in the air

$\alpha \geq 36°$.

21. (UNAMENDED) The optical pickup of claim 20, wherein at least one of the first and second reflecting portions further comprise a path difference generating portion generating a separate optical path for at least a portion of the incident beam, reducing the side lobe components of the light spot formed through the second transmitting portion by a difference in paths of a portion of the incident beam on the path difference generating portion and the remainder of the incident beam.

22. (UNAMENDED) The optical pickup of claim 21, wherein the path difference generating portion projects from the concave curvature of the second reflecting portion.

23. (UNAMENDED) The optical pickup of claim 21, wherein the path difference generating portion recesses into the concave curvature of the second reflecting portion.

24. (UNAMENDED) The optical pickup of claim 21, wherein the path difference generating portion is formed in the first reflecting portion.

25. (UNAMENDED) The optical pickup of claim 14, wherein at least one of the first and second reflecting portions further comprise a path difference generating portion generating a separate optical path for at least a portion of the incident beam, reducing the side lobe

components of the light spot formed through the second transmitting portion by a difference in paths of a portion of the incident beam on the path difference generating portion and the remainder of the incident beam.

26. (UNAMENDED) The optical pickup of claim 25, wherein the path difference generating portion projects from the concave curvature of the second reflecting portion.

27. (UNAMENDED) The optical pickup of claim 25, wherein the path difference generating portion recesses into the concave curvature of the second reflecting portion.

28. (UNAMENDED) The optical pickup of claim 25, wherein the path difference generating portion is formed in the first reflecting portion.

29. (UNAMENDED) The optical pickup of claim 14, wherein the first transmitting portion has curvature with a negative power.

30. (UNAMENDED) The optical pickup of claim 14, further comprising a detecting-correcting unit, on the optical path between the optical path changing unit and the objective lens, performing at least one of detecting the thickness of the optical disk and correcting aberration caused by thickness variations of the optical disk.

31. (UNAMENDED) The optical pickup of claim 30, wherein the detecting-correcting unit comprises a first lens and a second lens arranged on the optical path, the first lens being closer to the light source than the second lens, wherein the detecting-correcting unit actuates at least one of the first lens and the second lens to perform one of detecting the thickness of the optical disk and correcting aberration caused by thickness variations of the optical disk.

32. (AS ONCE AMENDED) An optical pickup, comprising:

a light source emitting an incident beam;

an optical path changing unit altering a traveling path of the incident beam;

an objective lens focusing the incident beam from the light source to form a light spot on the optical disk;

a photodetector receiving the beam reflected from the optical disk and passed through

the objective lens and the optical path changing unit; and

a detecting-correcting unit, arranged on the optical path between the optical path changing unit and the objective lens, detecting the thickness of the optical disk and correcting aberration caused by thickness variations of the optical disk.

33. (UNAMENDED) The optical pickup of claim 32, wherein the objective lens is disposed on an optical path between the optical path changing unit and the optical disk.

34. (UNAMENDED) The optical pickup of claim 33, wherein the detecting-correcting unit comprises a first lens and a second lens arranged on the optical path, the first lens being closer to the light source than the second lens, wherein the detecting-correcting unit actuates at least one of the first lens and the second lens to perform one of detecting the thickness of the optical disk and correcting aberration caused by thickness variations of the optical disk.

35. (UNAMENDED) The optical pickup of claim 32, wherein the objective lens comprises:

a first transmitting portion divergently transmitting an incident beam, wherein the first transmitting portion is at a relatively near-axis region from an optical axis of the objective lens;

a second transmitting portion transmitting the incident beam, wherein the second transmitting portion is arranged facing the first transmitting portion;

a first reflecting portion, comprising a negative power, condensing and reflecting the incident beam from the first transmitting portion, wherein the first reflecting portion is formed around the second transmitting portion; and

a second reflecting portion, comprising a positive power, condensing and reflecting the incident beam from the first reflecting portion towards the second transmitting portion, wherein the second reflecting portion is formed around the first transmitting portion.

36. (AS ONCE AMENDED) An optical disk, comprising:

an information substrate, wherein the information substrate comprises

an incident surface receiving light to record and reproduce information; and

a recording surface on which an information signal is recorded and from which at least a portion of an incident beam is reflected, wherein the thickness from the incident surface of the information substrate to the recording surface is less than 0.1 mm, and a thickness error from

the incident surface of the information substrate to the recording surface is within $\pm$ 5 μm.

38. (AS ONCE AMENDED) An objective lens focusing an incident beam from a light source to form a light spot on an optical disk, comprising:

at least one transmitting portion transmitting the incident beam; and

at least one reflecting portion condensing and reflecting the incident beam from the at least one transmitting portion, wherein the at least one reflecting portion comprises a negative power and the at least one reflecting portion further comprises a positive power.

39. (UNAMENDED) The objective lens of claim 38, wherein the at least one transmitting portion comprises a first transmitting portion and a second transmitting portion, wherein the second transmitting portion is arranged facing the first transmitting portion.

42. (AS ONCE AMENDED) An objective lens, comprising:

a single lens configuration comprising a high numerical aperture to form a high-density, high resolution light spot, a first reflecting portion comprising a negative power, and a second reflecting portion comprising a positive power.

43. (AS ONCE AMENDED) The objective lens of claim 42, wherein the numerical aperture comprises at least 0.8.

44. (UNAMENDED) The objective lens of claim 42, wherein the single lens configuration comprises a first transmitting portion divergently transmitting an incident beam, wherein the first transmitting portion is at a relative near-axis region from an optical axis of the objective lens.

45. (UNAMENDED) The objective lens of claim 44, wherein the single lens configuration further comprises a second transmitting portion transmitting the incident beam, wherein the second transmitting portion is arranged facing the first transmitting portion.

46. (AS ONCE AMENDED) The objective lens of claim 45, wherein the first reflecting portion condenses and reflects the incident beam from the first transmitting portion and is formed around the second transmitting portion.

47. (AS ONCE AMENDED) The objective lens of claim 46, wherein the second reflecting portion condenses and reflects the incident beam from the first reflecting portion towards the second transmitting portion and is formed around the second transmitting portion.

48. (AS ONCE AMENDED) An objective lens, comprising:

a single lens configuration shielding a near-axis beam and comprising a numerical aperture of at least 0.8, a first reflecting portion comprising a negative power, and a second reflecting portion comprising a positive power.

51. (AS ONCE AMENDED) The objective lens of claim 50, wherein the first reflecting portion condenses and reflects the incident beam from the first transmitting portion and is formed around the second transmitting portion.

52. (AS ONCE AMENDED) The objective lens of claim 51, wherein the second reflecting portion condenses and reflects the incident beam from the first reflecting portion towards the second transmitting portion and is formed around the second transmitting portion.

53. (AS ONCE AMENDED) An optical pickup, comprising:

an objective lens comprising a single lens configuration, the single lens configuration comprising a high numerical aperture to form a high-density, high resolution light spot, a first reflecting portion comprising a negative power, and a second reflecting portion comprising a positive power.

54. (UNAMENDED) The optical pickup of claim 53, wherein the numerical aperture comprises at least 0.8.

55. (UNAMENDED) The optical pickup of claim 53, wherein the single lens configuration comprises a first transmitting portion divergently transmitting an incident beam, wherein the first transmitting portion is at a relative near-axis region from an optical axis of the objective lens.

56. (UNAMENDED) The optical pickup of claim 55, wherein the single lens

configuration further comprises a second transmitting portion transmitting the incident beam, wherein the second transmitting portion is arranged facing the first transmitting portion.

57. (AS ONCE AMENDED) The optical pickup of claim 56, wherein the first reflecting portion condenses and reflects the incident beam from the first transmitting portion and is formed around the second transmitting portion.

58. (AS ONCE AMENDED) The optical pickup of claim 57, wherein the second reflecting portion condenses and reflects the incident beam from the first reflecting portion towards the second transmitting portion and is formed around the second transmitting portion.

59. (UNAMENDED) An objective lens, comprising:

a first transmitting portion divergently transmitting an incident beam, wherein the first transmitting portion is at a relatively near-axis region from an optical axis of the objective lens;

a second transmitting portion transmitting the incident beam, wherein the second transmitting portion is arranged facing the first transmitting portion;

a first reflecting portion, comprising a negative power, condensing and reflecting the incident beam from the first transmitting portion, wherein the first reflecting portion is formed around the second transmitting portion; and

a second reflecting portion, comprising a positive power, condensing and reflecting the incident beam from the first reflecting portion towards the second transmitting portion, wherein the second reflecting portion is formed around the first transmitting portion,

wherein the objective lens forms a small light spot to reproduce information from an optical disk when a ratio of an outer diameter of the second transmitting portion to an outer diameter of the incident beam on the first reflecting portion is 0.5 or less or, when the outer diameter of the second transmitting portion and the outer diameter of the incident beam on the first reflecting portion satisfy the following condition

$$0.1 < \frac{\text{diameter of second transmitting portion}}{\text{outer diameter of light incident on first reflecting portion}} < 0.3$$

60. (UNAMENDED) An optical pickup comprising:

an objective lens comprising:

a first transmitting portion divergently transmitting an incident light beam,

at least one portion converging the diverging light beam to a converging light beam, and

a second transmitting portion transmitting only the converging light beam.

61. (UNAMENDED) The optical pickup of claim 60, wherein the second transmitting portion is opposite to the first transmitting portion on the objective lens and an optical axis of the objective lens passes through the first and second transmitting portions.

62. (UNAMENDED) An optical pickup comprising:

an objective lens comprising:

a first transmitting portion transmitting an incident light beam,

at least another portion to alter a path of the incident light beam,

a second transmitting portion shielding the incident light beam of a near-axis region and transmitting the altered light beam from the at least another portion.